

IN THE CLAIMS:

Please cancel claims 1-29 and add new claims 30-33 as follows:

1-29. (Canceled).

30. (New) A radioactive seed for use in radiation therapy, the radioactive seed comprising:

    a sealed housing having an internal cavity;

    a plurality of separate carrier units disposed within, and distributed at one end of, the cavity, each said carrier unit being impregnated with a radioisotope as a radiation source; and

    a plurality of X-ray detectable markers disposed within, and distributed at an opposing end of, the cavity, wherein the distribution of the plurality of X-ray markers reveals an orientation of the radioactive seed when the seed is exposed to an X-ray photography.

31. (New) A system for providing radiation treatment to an affected tissue area, the system comprising:

    (a) a plurality of first radioactive seeds, each of the first radioactive seeds including:

        a sealed housing having an internal cavity;

        at least one carrier body disposed within the cavity for maintaining a radioisotope, as a radiation source, in a distribution along a length of the cavity; and

        a plurality of X-ray detectable markers distributed along the length of the cavity, at least two of the X-ray detectable markers being laterally separated from

one another by at least one carrier body,

(b) a plurality of second radioactive seeds, each of the second radioactive seeds including:

a sealed housing having an internal cavity;

at least one carrier body disposed within the cavity for maintaining a radioisotope, as a radiation source, in a distribution along a length of the cavity; and  
a plurality of X-ray detectable markers distributed along the length of the cavity, at least two of the X-ray detectable markers being adjacent to one another, and

(c) an implantation device to position the radioactive seeds in the affected tissue area,

wherein the distribution of the plurality of X-ray markers in each radioactive seed reveals an orientation of the radioactive seed in the affected tissue area when the tissue area is exposed to X-ray photography and wherein the first radioactive seeds have an X-ray signature which is distinguishable from an X-ray signature of the second radioactive seeds when the tissue area is exposed to X-ray photography.

32. (New) The system of claim 31, wherein the radiation source of the first radioactive seeds is different from the radiation source of the second radioactive seeds.

33. (New) The system of claim 31, wherein the radiation source of the first radioactive seeds is provided at a first dosage and the radiation source of the second radioactive seeds is provided at a second dosage different from the first dosage.